



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q92097

Akemitsu IIDA, et al.

Appln. No.: 10/560,980

Group Art Unit: 1754

Confirmation No.: 3728

Examiner: Timothy C. VANOY

Filed: December 16, 2005

For: GAS PROCESSING METHOD AND GAS PROCESSING APPARATUS UTILIZING  
OXIDATION CATALYST AND LOW-TEMPERATURE PLASMA

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith, except for the following: U.S. patents and/or U.S. patent publications; and co-pending non-provisional U.S. applications filed after June 30, 2003.

The present Information Disclosure Statement is being filed (without a Statement Under 37 C.F.R. § 1.97(e)) after the later of three months from the application's filing date and the mailing date of the first Office Action on the merits, but before a Final Office Action, Notice of

Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), and therefore a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p) is attached.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith an English-language version of an Office Action from the Patent Office of the People's Republic of China in connection with a counterpart Chinese Application.

In further compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant submits the following explanation:

CN2351151Y discloses a process and a device for cleaning air to convert harmful compounds by a combined action of a low-temperature plasma and a catalyst. The device disclosed in CN2351151Y mainly comprises a heat exchanger B, a heater 9, a bed discharge reactor 4, a catalyst layer 7, and an air-blower 11. The bed discharge reactor 4 contains high-voltage electrodes 4-2, earth electrodes 4-3, and a medium material or a catalyst 4-1, and an oxide of Mn may be used as the catalyst.

The hopcalite catalyst is placed not in the discharge reactor 4, but in the catalyst layer 7, which is located outside of the discharge reactor 4. Therefore, CN2351151Y does not disclose that the low-temperature plasma is generated in the presence of the hopcalite catalyst.

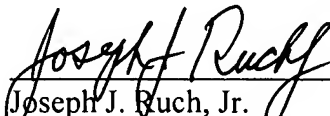
Further, CN2351151Y does not disclose that polluted air containing cigarette smoke can be effectively treated by a low-temperature plasma generated in the presence of the hopcalite catalyst.

Furthermore, a gas to be treated is pre-heated in CN2351151Y (see claim 1), whereas polluted air containing cigarette smoke can be treated at room temperature in the present invention. For example, the temperature in the reactor is 250-310°C in Example 1 of Citation 1, whereas the temperature in the low-temperature plasma generating apparatus 1 is 22°C in Example 1 of the present specification. Thus, Applicant submits that CN2351151Y does not teach or suggest the present invention.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

  
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